

ABSTRACT

A process chamber **35** for processing a substrate **30** and monitoring the process conducted on the substrate **30**, comprises a support **45**,  
5 a gas distributor, and an exhaust **85**. The process chamber **35** has a wall comprising a window **130** that allows light to be transmitted therethrough. Means are providing for reducing deposition of process residue from the process gas onto the window **130** during processing of the substrate **30**. In one  
10 version, the window **130** comprises a transparent plate **135** covered by an overlying mask **140** that has at least one aperture **145** extending through the mask **140** so that light can be transmitted through the aperture **145** and the transparent plate **135**.